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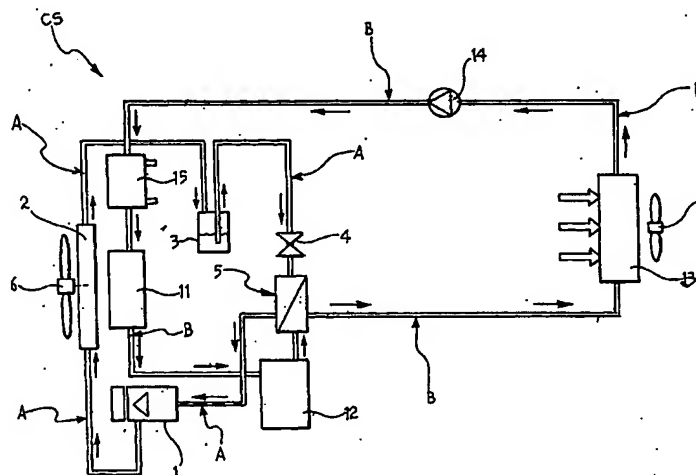
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(54) Title: A CLIMATE CONTROL SYSTEM WITH A VAPOUR COMPRESSION CIRCUIT COMBINED WITH AN ABSORPTION CIRCUIT



(57) Abstract: The system (SC) includes a first, vapour compression circuit (A), including a compressor (1) with its output connected to a condenser (2; 2') followed by an expansion device (4) and an evaporator (5; 16) having its output connected to the intake of the compressor (1); a second, absorption circuit (B) with a hygroscopic solution flowing through it in operation and including a regenerator (11) with semipermeable membranes operable to allow the said solution to give up moisture (water) to a first airflow flowing in the regenerator (11) in operation, a dehumidifier (13) with semipermeable membranes arranged downstream of the regenerator (11) and operable to allow a second airflow to give up moisture to the hygroscopic solution, and a circulation pump (14). The first and second circuits (A, B) are connected by at least one heat exchanger (5) in which the hygroscopic solution flowing through the second circuit (B) gives up heat to the cooling fluid flowing through the first circuit (A).

- *of inventorship (Rule 4.17(iv)) for US only*

— *with international search report*

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